

### REMARKS

Claims 1-41 are pending in the application. New claims 33-41 have been added herein. The position set forth in the Office Action has been carefully considered. Favorable reconsideration of the application, as amended, is respectfully requested.

#### I. ALLOWABLE SUBJECT MATTER

Applicant acknowledges with appreciation the allowance of claims 1-14, and 31. In addition, applicant notes with appreciation the indicated allowability of claims 16, 19, 23, and 28 subject to being amended to independent form.

Applicant believes that all pending claims are in condition for allowance in their current form for at least the reasons set forth below.

#### II. REJECTIONS OF CLAIMS 15, 17, 18, 20-22, 24-25, 27, 29, AND 32 UNDER 35 U.S.C. § 102(e)

Claims 15, 17, 18, 20-22, 24-25, 27, 29, and 32 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,574,797 ("Naegeli"). Withdrawal of the rejections is respectfully requested.

As fully explained in the prior responses, some of the pending claims pertain to modems on a network where the individual modems are allowed to transmit upstream only in separate time slots. Time slot allocation is often administered by a "cable modem termination system" (CMTS) responsible for the entire network of cable modems, which may number into the many thousands. Regardless of whether specific time slots are allocated for upstream transmissions, the claimed invention requires a method, apparatus, or computer program product that takes upstream FFT measurements or noise measurements at one time when a potentially faulty modem is transmitting upstream and at another time when no modem is transmitting upstream.

Independent claim 15 recites "a processor for performing computations on the FFT measurements and communicating data, wherein the data relates to noise levels of the upstream signal at predetermined times." Claim 15 further requires that "the predetermined times correspond to

a first time when a cable modem is transmitting data upstream, and

a second time when no data is being transmitted upstream.”

Independent claims 21, 27, and 32 contain related recitations of the FFT/noise measurements generated at times when the modem in question is transmitting and when no modem is transmitting.

In the Office Action, the Examiner asserts that Fig. 7 of the Naegeli patent shows the above-identified “first time when a cable modem is transmitting data upstream, and second time when no data is being transmitted upstream.” Applicants respectfully disagree.

Naegeli’s system locates a clean bandwidth within a frequency channel (column 12, lines 11-13). Such a frequency channel has 32 “bins,” or FFT points. Each of these 32 bins has a frequency slice of, for example, 100 kHz. Naegeli, column 15, lines 13-16. In order to identify the clean bandwidth, the Naegeli system scans the contiguous bins, one by one, for FFT analysis from the lowest frequency bin to the highest frequency bin, for example. See, column 8, lines 49-55. Since FFT analysis inevitably requires some time to process data, the horizontal axis of Fig. 7 referred to as “time” (column 8, line 12) actually indicates frequency covering contiguous band slices or frequency bins within a frequency channel. Therefore, Naegeli’s Fig. 7 does not show the claimed “first time and second time.”

The Examiner points to portions 710 and 714 in Fig. 7 of Naegeli as describing the claimed “first time when a cable modem is transmitting data upstream.” However, these peaks in Fig. 7 merely correspond to generic ingress noise from any of various possible sources. See, column 4, lines 27-45. It is respectfully submitted that the generic representation of ingress noise in Figure 7 does not suggest, with the specificity required to support a 102 rejection, data or noise which is being transmitted upstream by any particular cable modem. Ingress noise can originate with many possible sources, internal and external to the cable network. Some are listed in the Background section of the application at issue. Therefore, the Naegeli patent fails to teach or suggest the claimed identification of predetermined times when a cable modem is transmitting data upstream, and when no data is being transmitted upstream.

In summary, the Naegeli patent is silent on a first time when a cable modem is transmitting data upstream, and a second time when no data is being transmitted upstream, as claimed. In view of the foregoing, it is respectfully submitted that the invention of claims 15, 21, 27, and 32, and their dependent claims is patentable over the cited art. Withdrawal of the rejections to claims 15, 17, 18, 20-22, 24-25, 27, 29, and 32 is respectfully requested.

### **III. REJECTIONS OF CLAIMS 26 AND 30 UNDER 35 U.S.C. § 103(a)**

Claims 26 and 30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the Naegeli patent. Applicants respectfully submit that Naegeli does not qualify as prior art under 35 U.S.C. § 103(a) because 35 U.S.C. § 103(c) is applied here. 35 U.S.C. § 103(c) is reproduced below:

Subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. (emphasis added)

First, it is noted that the present application was filed as a continued prosecution application (CPA) on December 6, 2002. Since a CPA is a new application, the present application benefits the application of § 103(c) (effective as of November 29, 1999), which disqualifies commonly owned prior art.

The claimed invention of this application was owned by Cisco Technology, Inc., and subject to an obligation of assignment to Cisco Technology, Inc. at the time the invention was made. See, the assignment filed in the original application on June 3, 1999. Additionally, the subject matter of the Naegeli patent is also assigned to the same entity, i.e., Cisco Technology, Inc. Accordingly, under 35 U.S.C. § 103(c), the Naegeli patent does not qualify as prior art under 35 U.S.C. § 103(a). Withdrawal of the rejections is respectfully requested.

### **IV. NEW CLAIMS**

New claims 33-41 have been added herein.

Means plus function claims 33-35 correspond to allowed method claims 1, 6, and 11, respectively. Therefore, claims 33-35 are believed to be in condition for allowance.

Means plus function claims 36-41 correspond to method claims 21-26, respectively. Since claim 23 has been indicated its allowability, and claims 21-22, and 24-26 are believed to be in condition for allowance as discussed above, claims 36-41 are also believed to be in condition for allowance.

**V. CONCLUSION**

Applicants believe that all pending claims are in condition for allowance, and respectfully requests a Notice of Allowance at an early date. If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 510-843-6200, ext. 245.

Respectfully submitted,  
BEYER WEAVER & THOMAS, LLP



Haruo Yawata  
Limited Recognition under 37 CFR § 10.9(b)

P.O. Box 778  
Berkeley, CA 94704-0778  
Tel: 510-843-6200, ext. 245

**BEFORE THE OFFICE OF ENROLLMENT AND DISCIPLINE  
UNITED STATES PATENT AND TRADEMARK OFFICE**

**LIMITED RECOGNITION UNDER 37 CFR § 10.9(b)**

Mr. Haruo Yawata is hereby given limited recognition under 37 CFR § 10.9(b) as an employee of Beyer Weaver & Thomas, LLP to prepare and prosecute patent applications wherein the patent applicant is the client of Beyer Weaver & Thomas, LLP, and the attorney or agent of record in the applications is a registered practitioner who is a member of Beyer Weaver & Thomas, LLP. This limited recognition shall expire on the date appearing below, or when whichever of the following events first occurs prior to the date appearing below: (i) Mr. Haruo Yawata ceases to lawfully reside in the United States, (ii) Mr. Haruo Yawata's employment with Beyer Weaver & Thomas, LLP ceases or is terminated, or (iii) Mr. Haruo Yawata ceases to remain or reside in the United States on an H-1 visa.

This document constitutes proof of such recognition. The original of this document is on file in the Office of Enrollment and Discipline of the U.S. Patent and Trademark Office.

**Expires: August 28, 2004**



**Harry I. Moatz**

**Director of Enrollment and Discipline**